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Ghosh et al.

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[54] **METHOD AND APPARATUS FOR TRANSMITTING INFORMATION REGARDING THE SYNCHRONIZATION STATUS OF A BASE STATION**

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ANSI-J-STD-008, Section 7.7.7.3.2.3.

Fast Cell Search Algorithm in DS-CDMA Mobile Radio Using Long Spreading Codes, by Higuchi, et al.

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[57] ABSTRACT

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[58] Field of Search 455/502, 524, 455/525, 519, 503, 454, 38.1, 522, 517; 370/335, 342, 350, 503, 913, 320; 375/354, 356, 206, 358

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Base stations (**101**, **102**) utilize a spreading code that is dependent upon whether the particular base station (**101**) is operating in a synchronized, or an unsynchronized mode. Unsynchronized base stations (**102**) within the communication system (**100**) utilize a long code unique to the particular base station (**102**), and base stations (**101**) operating in a synchronized mode utilize a time shifted version of the same long code. To reduce the search time for remote units (**113**) within the communication system (**100**), a group identification code (GIC) (**305**) is broadcast during a time period that the long code is masked. The GIC (**305**) indicates a (spreading code) long code group to which the long code of each base station belongs. Additionally, each base station (**101**, **102**) within the communication system (**100**) determines its synchronization status and utilizes a particular GIC (**305**) and long code based on the base station's synchronization status.

13 Claims, 4 Drawing Sheets

